WHAT IS CLAIMED IS:

1. A thin-film magnetic head comprising:

a magnetoresistive film;

a pair of magnetic domain control layers, disposed separately from each other on both sides of the magnetoresistive film in a track width direction, for applying a bias magnetic field to the magnetoresistive film;

a pair of electrode layers, laminated on the respective magnetic domain control layers while being separated from each other on both sides of the magnetoresistive film in the track width direction, for supplying a current to the magnetoresistive film;

first and second shield layers, disposed separately from each other in a laminating direction so as to hold the magnetic domain control layers and electrode layers therebetween, for shielding the magnetoresistive film;

a first insulating layer disposed between the magnetoresistive film and magnetic domain control layer and the first shield layer; and

a second insulating layer disposed between the magnetoresistive film and electrode layer and the second shield layer;

wherein the shield layers have a distance therebetween shorter at a position where the electrode layer and magnetic domain control layer are laminated than that at a position where the magnetoresistive film is located; and wherein,

while a surface of the magnetic domain control layer on the first insulating layer side at the position where the electrode film and magnetic domain control layer are laminated is taken as a reference surface, a distance from the reference surface to a surface of the electrode layer on the second insulating layer side is set shorter than the distance from the reference surface to a surface of the magnetoresistive film on the second insulating layer side.

2. A thin-film magnetic head according to claim 1, further comprising an additional electrode layer separated from an end part of the magnetoresistive film in the track width direction by at least a predetermined length in the track width direction and electrically connected to the former electrode layer.

3. A thin-film magnetic head according to claim 2, wherein the additional electrode layer has a thickness set greater than that of the former electrode layer.

4. A thin-film magnetic head according to claim 2, further comprising an additional magnetic domain control layer separated from an end part of the magnetoresistive film in the track width direction by at least a predetermined length in the track width direction and laminated on the former magnetic domain control layer.

5. A thin-film magnetic head according to claim 1, wherein the distance from the reference surface to the surface of the electrode layer on the second insulating layer

side is set shorter than the distance from the reference surface to the surface of the magnetoresistive film on the second insulating layer side within an area separated by 50 nm to 200 nm from an end part of the surface of the magnetoresistive film on the second insulating layer side in the track width direction.

6. A thin-film magnetic head assembly comprising a thin-film magnetic head, and a flexible member for attaching the thin-film magnetic head thereto;

the thin-film magnetic head comprising:

a magnetoresistive film;

a pair of magnetic domain control layers, disposed separately from each other on both sides of the magnetoresistive film in a track width direction, for applying a bias magnetic field to the magnetoresistive film;

a pair of electrode layers, laminated on the respective magnetic domain control layers while being separated from each other on both sides of the magnetoresistive film in the track width direction, for supplying a current to the magnetoresistive film;

first and second shield layers, disposed separately from each other in a laminating direction so as to hold the magnetic domain control layers and electrode layers therebetween, for shielding the magnetoresistive film;

a first insulating layer disposed between the magnetoresistive film and magnetic domain control layer and

the first shield layer; and

a second insulating layer disposed between the magnetoresistive film and electrode layer and the second shield layer;

wherein the shield layers have a distance therebetween shorter at a position where the electrode layer and magnetic domain control layer are laminated than that at a position where the magnetoresistive film is located; and wherein, while a surface of the magnetic domain control layer on the first insulating layer side at the position where the electrode film and magnetic domain control layer are laminated is taken as a reference surface, a distance from the reference surface to a surface of the electrode layer on the second insulating layer side is set shorter than the distance from the reference surface to a surface of the magnetoresistive film on the second insulating layer side.

7. A storage device comprising a magnetic recording medium for magnetically recording a signal, and a thin-film magnetic head for converting a change in a magnetic field leaking from the magnetic recording medium into an electric signal;

the thin-film magnetic head comprising:

a magnetoresistive film;

a pair of magnetic domain control layers, disposed separately from each other on both sides of the magnetoresistive film in a track width direction, for

applying a bias magnetic field to the magnetoresistive film;

a pair of electrode layers, laminated on the respective magnetic domain control layers while being separated from each other on both sides of the magnetoresistive film in the track width direction, for supplying a current to the magnetoresistive film;

first and second shield layers, disposed separately from each other in a laminating direction so as to hold the magnetic domain control layers and electrode layers therebetween, for shielding the magnetoresistive film;

a first insulating layer disposed between the magnetoresistive film and magnetic domain control layer and the first shield layer; and

a second insulating layer disposed between the magnetoresistive film and electrode layer and the second shield layer;

wherein the shield layers have a distance therebetween shorter at a position where the electrode layer and magnetic domain control layer are laminated than that at a position where the magnetoresistive film is located; and wherein, while a surface of the magnetic domain control layer on the first insulating layer side at the position where the electrode film and magnetic domain control layer are laminated is taken as a reference surface, a distance from the reference surface to a surface of the electrode layer on the second insulating layer side is set shorter than the

distance from the reference surface to a surface of the magnetoresistive film on the second insulating layer side.

8. A method of manufacturing a thin-film magnetic head comprising a magnetoresistive film, a magnetic domain control layer for applying a bias magnetic field to the magnetoresistive film, and an electrode layer for supplying a current to the magnetoresistive film;

the method comprising the steps of:

forming on the magnetoresistive film a first resist layer having a desirable pattern;

removing the magnetoresistive film while using the first resist layer as a mask;

successively forming the magnetic domain control layer and a first electrode layer on each of both sides of the magnetoresistive film while using the first resist layer as a mask;

removing the first resist layer;

forming on the magnetoresistive film a second resist layer having a desirable pattern wider than the first resist layer;

forming a second electrode layer on the first electrode layer while using the second resist layer as a mask; and

removing the second resist layer.

9. A method of manufacturing a thin-film magnetic head comprising a magnetoresistive film, a magnetic domain control layer for applying a bias magnetic field to the

magnetoresistive film, and an electrode layer for supplying a current to the magnetoresistive film;

the method comprising the steps of:

forming on the magnetoresistive film a resist layer having a desirable pattern;

removing the magnetoresistive film while using the resist layer as a mask;

successively forming the magnetic domain control layer and a first electrode layer on each of both sides of the magnetoresistive film by successively depositing respective material substances constituting the magnetic domain control layer and electrode film at a predetermined first angle;

forming a second electrode layer on the first electrode layer by depositing a material substance constituting the electrode layer at a predetermined second angle greater than the predetermined first angle while using the resist layer as a mask; and

removing the resist layer.

10. A method of manufacturing a thin-film magnetic head comprising a magnetoresistive film, a magnetic domain control layer for applying a bias magnetic field to the magnetoresistive film, and an electrode layer for supplying a current to the magnetoresistive film;

the method comprising the steps of:

forming on the magnetoresistive film a first resist

layer having a desirable pattern;

removing the magnetoresistive film while using the first resist layer as a mask;

successively forming a first magnetic domain control layer and a first electrode layer on each of both sides of the magnetoresistive film while using the first resist layer as a mask;

removing the first resist layer;

forming on the magnetoresistive film a second resist layer having a desirable pattern wider than the first resist layer;

removing the first electrode layer so as to expose the first magnetic domain control layer while using the second resist layer as a mask;

forming a second magnetic domain control layer on the exposed first magnetic domain control layer while using the second resist layer as a mask;

forming a second electrode layer on the second magnetic domain control layer while using the second resist layer as a mask; and

removing the second resist layer.